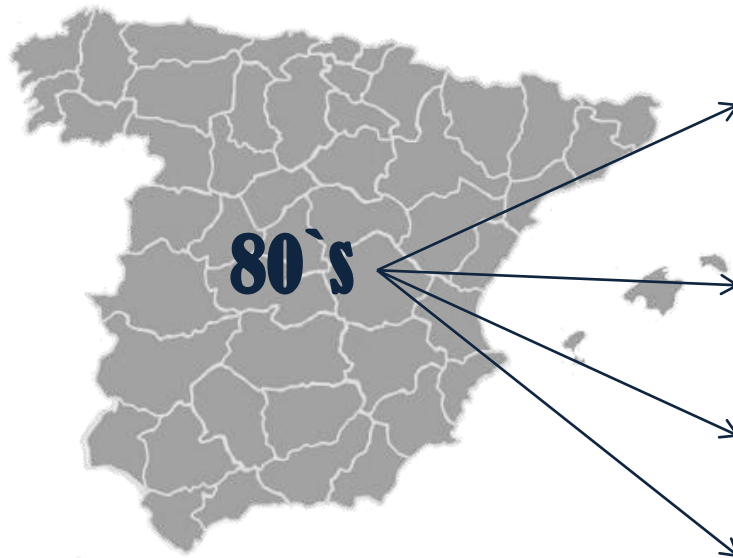


Infrastructures “made in Spain”



California, June 2011

>> Spain in the 80 s



Reduced highway **network** (1,242 miles). Unconnected and with multiple bottlenecks.

Few double track **railways** (20%) and very limited speed.

Low quality **urban transport**.

Airport network development needed to meet the tourism “boom”.

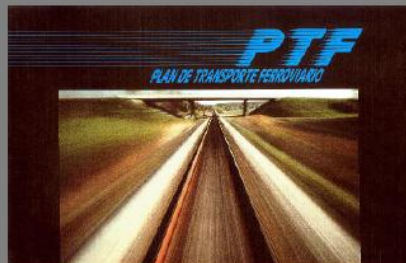
>> transport policy

- Long term policy and focus on intermodal transport.
- High investments (1980-2009).

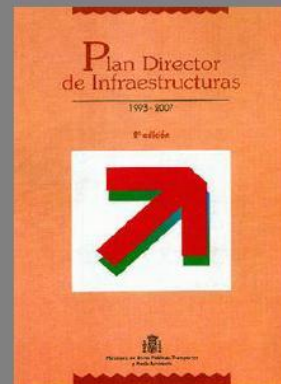
1.5% average of GDP
Private-public financing

- Creation of public entities with capacity for debt (Adif, Renfe Operadora and Aena)
- Qualified professionals and solid industrial base.

In Spain, planning is a responsibility of the Government through the Ministry of Public Works and Transportation



1987



1993



2000



2005

>> main guidelines

- Promote intermodality and distribution of demands to diminish bottlenecks.
- More sustainable ways for transportation (railway).
- Better conectivity and territorial accessibility.
- Safety as a priority.
- Improve transport flows towards other countries and regions (Europe, Latam).

> Main Targets

Social
integration

Territorial
integration

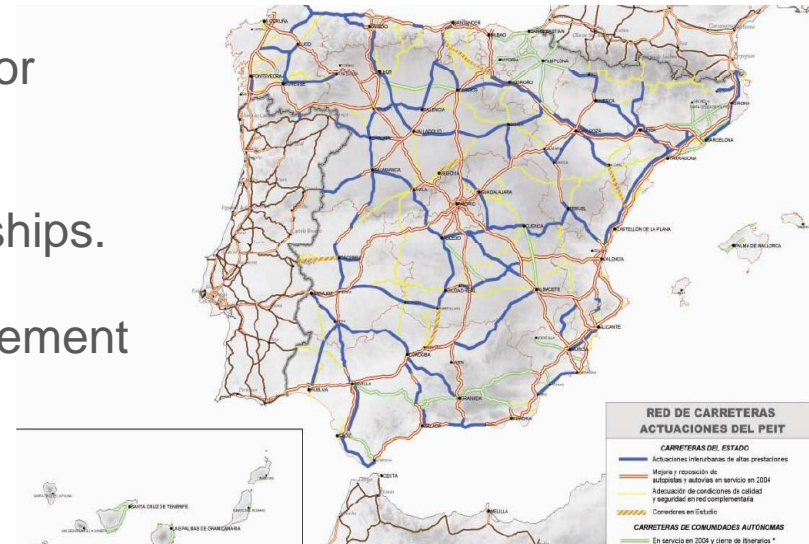
Economic
development
and
competitiveness

Sustainability of
the system

>> achievements

>> Roads

- The largest high capacity network in Europe (9,320 mi.)
- More resources applied for maintenance (2%/year of road network asset value).
- City access improved. Land preserved for future developments.
- Strong support of public-private partnerships.
- Efficient traffic and infrastructure management systems.



>> achievements

>> Airports

- Airport capacity increase to handle up to 300 million passengers/year. Capable to absorb future demand.
- Amongst top airport operators (navigation support systems, handling services, etc.)

Average growth per passenger
2000-2010 = 4.3%
(2% above European average)

47 airports
2 heliports



>> achievements

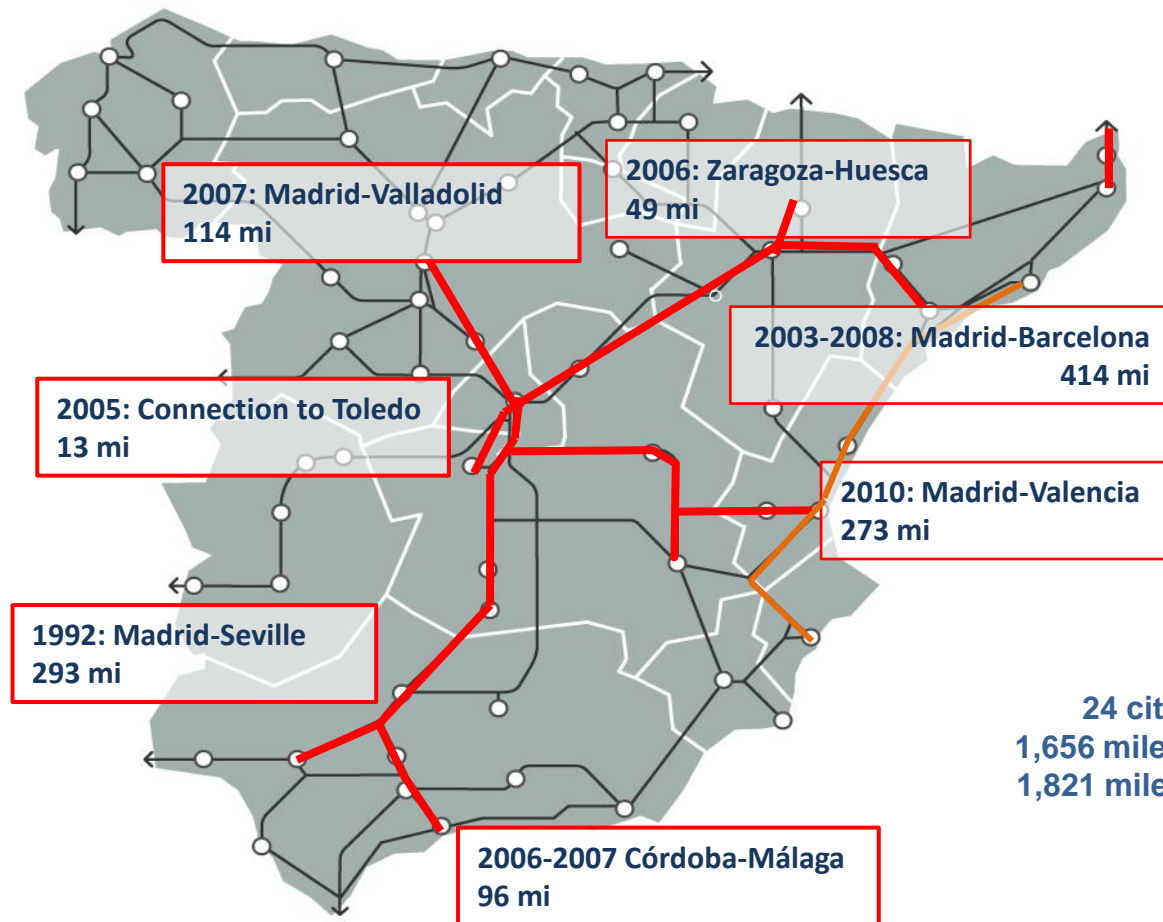
>> Ports

- Port capacity increased to handle the growth of cargo traffic.
- Better land access with roads and railways.
- Water traffic development.



>> achievements

>> High Speed Network 2010



Interoperability with Europe

Yearly increases of passenger demand

Highest safety standards and quality services

>> achievements

>> Railways

A global leader:

In 2011, Spain will have 1656 mi. of HS lines in commercial operation, and 1821 mi. under study, design and construction.

Longest HSL in the world:

Barcelona-Madrid- Málaga = 696.5 mi.

Speed achievement in:

Lines that allow, in 90% of the route, speeds of at least 186 mph.
Record achieved in a commercial standard line: 218 mph.

Leaders in train punctuality:

98.5%, second in the world.

Safety and comfort.


0 Accidents
96% customer satisfaction

Cost and construction efficiency

Lower cost per line in Europe 24.15 mill. €/mi.
4 years overall time from construction to operation

Innovative solutions and technologies

At the forefront of interoperability and industrial developments



25 years of
experience in the
complete
development
process of High
Speed

>> Spanish High Speed

Spain, with more than 25 years of experience in high speed, has been able to develop high technology integrating both national and international high speed developments:

- Track
- Signalling
- Electrification
- Detection systems
- Communication
- Control Centers
- Rolling stock

Integration of different
technologies

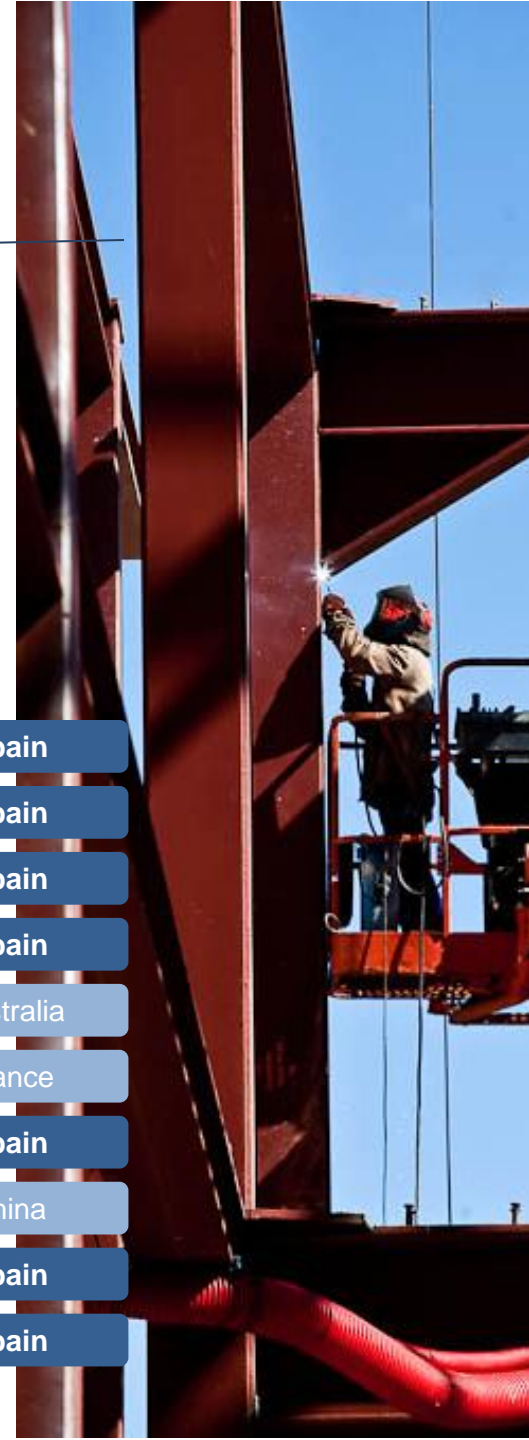


>> Spain today

- Very solid industrial sector with a vast experience in complex transport developments.
- Engineering, construction companies and related industries are placed within the main export sectors nowadays.

7 out of 10 largest world concessionaries in transport infrastructure are Spanish

1. ACS	Spain
2. GLOBALVÍA	Spain
3. ABERTIS	Spain
4. FERROVIAL	Spain
5. MACQUARIE	Australia
6. VINCI	France
7. OHL	Spain
8. NWS	China
9. ACCIONA	Spain
10. SACYR	Spain



>> Spanish High Speed

The difficult orography has enable Spanish companies to acquire a vast experience building tunnels and viaducts. These have become a worldwide example of undercost construction and time efficiency.

Viaducts total length: 47.2 miles
Tunnels total length: 104,4 miles

Guadarrama tunnel: 17.4 miles. *The 4th longest in Europe and 5th in the world.*

Pajares tunnels: 14.9 miles. *The 5th longest in Europe.*

Contreras viaduct: 1,925.85 ft. *The longest concrete railway arch (856.3 ft. high) in Europe.*

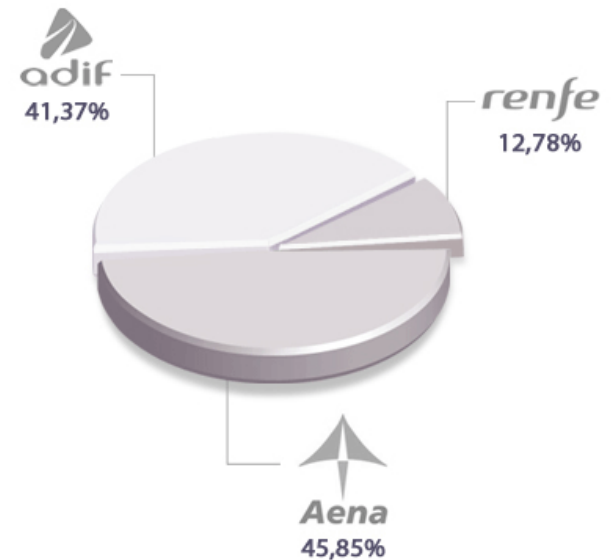
Arroyo del Valle viaduct: 0.6 miles. *The longest continuous panel viaduct in Europe.*

Spain is the second most mountainous country in Europe
(after Switzerland)



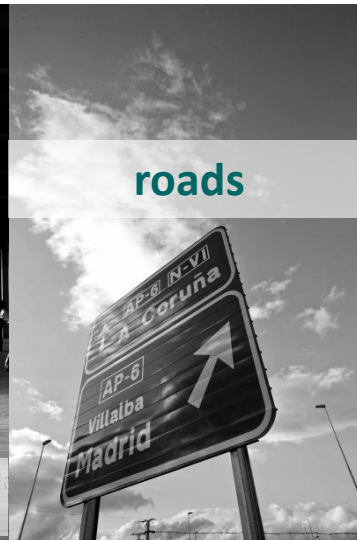
>> Ineco

- Ineco is a transport engineering and consultancy company integrated in the Spanish Ministry of Transport.
- It has been at the forefront of transport development in Spain for more than 40 years.



>> Ineco

- More than 3,300 professionals with experience in all transport activities: aeronautics, railways, roads and urban transport.
- All-round solutions based in the most advanced systems and implementation of innovative and advanced technologies.



>> Ineco

>> Designing ideas, developing high speed

- Ineco has been participating not only in the planning and design stages but also in the development, operation and maintenance of the most important high-speed lines across Spain.
- Innovative solutions that apply leading-edge technologies and the most advanced systems, together with custom developments.




Ineco has participated in the main high speed lines:
in service: 1,656 miles
planned and/or under construction: 1,821 miles


>> Ineco

Range of global services: from the conception and planning to operational readiness

Planning: feasibility, demand, profitability, market, start-up operation, strategic and management studies.



Engineering: informative, functional and environmental assessment studies, preliminary plan, basic and construction projects, project coordination and supervision.



Works: execution monitoring and surveillance, site management and supervision, supply management, environmental monitoring and surveillance.



Comissioning: operation support, self-protection plans and system operators.



Maintenance: standardisation of built projects, planning, maintenance follow-up and control.

>> Spanish capabilities

Spanish companies have reached a very high and competitive technological level providing knowledge, equipment components, civil works and high speed services:

- Prestigious international consulting and engineering companies.
- Extensive construction experience.
- Experience in designing, manufacturing, providing and maintaining AVE technologies.
- Development of rolling stock procurement systems based on different competing suppliers.
- Ample experience in the management of rail services and systems integration.
- The reliability of all processes that make up a high-quality customer service.
- Important investment budgets in research and development by the industry.

Infrastructures “made in Spain”



“Spain, the ideal partner for
infrastructure development”